

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Deborah Lamstein Examiner #: 71300 Date: 11/14/02
 Art Unit: 1626 Phone Number 308-4522 Serial Number: 09/886,044
 Mail Box and Bldg/Room Location: CMR 203 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

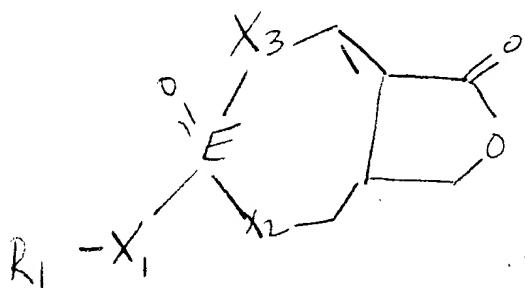
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Cyclopostins

Inventors (please provide full names): Vertes et al

Earliest Priority Filing Date:

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



$E = \text{phosphorus}$

$X_2 \text{ or } X_3 = \text{O or C, at least one being O}$

STAFF USE ONLY

Type of Search	Vendors and cost where applicable
NA Sequence (#)	STN
AA Sequence (#)	Dialog
Structure (#)	Questel/Orbit
Bibliographic	Dr. Link
Litigation	Lexis/Nexis
Fulltext	Sequence Systems
Patent Family	WWW/Internet
Other	Other (specify)

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FILE NUMBER: ICN-0044-14-Nov-1998-V1.1STN.DAT
 FILE LAST UPDATED: 14-Nov-1998-14:43:41

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

10
 11

12 d star que 117
 L11 STR

13 1 3
 2 C 2 C
 3 G1 C 9

6 G4 C C
 G1 C 3 10
 5 4

VAR G1=O/N/S/CH

VAR G4=P/S

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

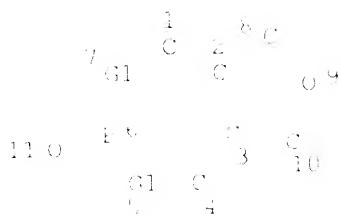
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L12 96 SEA FILE=REGISTRY SSS FUL L11
 L15 STR

0.0.



VAL G1-0/N/S/CH

NODE ATTRIBUTES:

DEFAULT NLEVEL IS ATOM

DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L16 22 SEA FILE-REGISTRY SUB=L12 SSS FUL L15

L17 9 SEA FILE-HCAPLUS ABB-ON PLU-ON L16

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L17 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:410371 HCAPLUS

DOCUMENT NUMBER: 137:169939

TITLE: Cyclipostins, novel hormone-sensitive lipase
Inhibitors from *Streptomyces* sp. DSM 13381: II.
Isolation, structure elucidation and biological
properties

AUTHOR(S): Vertes, Laszlo; Beck, Bernd; Bronstrup, Mark;
Ehrlich, Klaus; Kurz, Michael; Muller, Gunter;
Schummer, Dietmar; Seibert, Gerhard

CORPORATE SOURCE: LGC Natural Products Research, Germany
SOURCE: Journal of Antibiotics (2002), 55(5), 480-494

PUBLISHER: Japan Antibiotics Research Association

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

RECEIVED

R

[REDACTED]

I. R: R¹ Me, R² CH₂ Me, R³ H
 II. R: R¹ Me, R² Ph, R³ H
 III. R: R¹ H, R² R³ Me
 IV. R: R¹ Me, R² R³ H, R⁴ Et

AB: Hormone-sensitive lipase (HSL) is a key enzyme of lipid metabolism, and its control is therefore a target in the treatment of diabetes mellitus. Cultures of the *Streptomyces* species DSM 13381 have been shown to potently inhibit HSL. Ten inhibitors of HSL, termed cyclipostins, have been isolated from the mycelium of this microorganism and a further nine related compds. detected. Their structures were characterized by 2-D NMR exps. and by mass spectrometry and were found to comprise neutral cyclic enol phosphate ester with an added, linear, lactone ring. On account of their ester-bound fatty acq. side chain, the cyclipostins have physico-chem. properties similar to those of triglycerides. The outstanding characteristic of the cyclipostins is their strong anti-HSL activity, with IC₅₀ values in the nanomolar range. The in vitro and in vivo activities of cyclipostins A, P, P2, and S (1.fwdarw.IV) for inhibition are reported.

IT 372083-50-6P, Cyclipostin A 372091-46-8P, Cyclipostin P
 372091-94-6P, Cyclipostin P2 372092-03-0P, Cyclipostin S
 RL: PA² (Pharmacological activity); PR² (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (isolation, structure elucidation, and biol. properties of the hormone-sensitive lipase inhibitors cyclipostins from *Streptomyces* DSM 13381)

IT 372090-27-2P, Cyclipostin F 372090-93-2P, Cyclipostin N
 372091-96-8P, Cyclipostin R 372091-98-0P, Cyclipostin R2
 372092-04-1P, Cyclipostin T 372092-05-2P, Cyclipostin T2
 RL: PR² (Properties); PUR (Purification or recovery); PREP (Preparation)
 (isolation, structure elucidation, and biol. properties of the hormone-sensitive lipase inhibitors cyclipostins from *Streptomyces* DSM 13381)

IT 372088-34-1P, Cyclipostin A2 372091-95-7P, Cyclipostin Q
 372092-36-9P, Cyclipostin B 372092-41-6P, Cyclipostin C
 372092-43-8P, Cyclipostin D 372092-44-9P, Cyclipostin E
 372092-46-1P, Cyclipostin G 372092-51-8P, Cyclipostin H
 447408-07-3P, Cyclipostin Q3
 RL: ESU (Biological study, unclassified); PR² (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
 (of *Streptomyces* DSM 13381)

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 9 HCPL115 COPYRIGHT 2012 ACS

ACCESSION NUMBER: 2002:368987 HCPL115

DOCUMENT NUMBER: 136:380111

TITLE: Cyclipostins, process for their preparation, and pharmaceutical use thereof

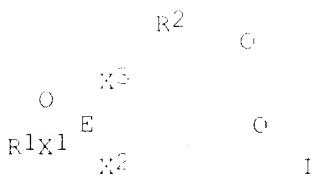
INVENTOR(S): Vertes, Laszlo; Ehrlich, Klaus; Kurz, Michael; Wink,

PATENT ASSIGNEE(S): Joachim
Germany
SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U. S.
Ser. No. 547,207.
COUN: JAPAN
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002018645	A1	20020516	US 2001-886044	20010622
DE 10021731	A1	20011119	DE 2000-10021731	20000504
WO 2001018497	A1	20011108	WO 2001-EP4652	20010425
W: AE, AG, AL, AM, AT, AZ, BA, BE, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, EE, ES, FI, FR, GE, GH, GM, HR, HU, ID, IL, IN, IS, IT, KE, KG, KM, KR, LU, LR, MR, LS, LT, LV, MA, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TG, TR, TT, TE, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KG, MR, RU, TG, TM				
RW: GH, GM, KE, LN, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MT, NL, PT, SE, TR, BF, BJ, CF, CG, CI, DM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			DE 2000-10021731 A	20000504
			WO 2001-EP4652	W 20010425
			US 2001-847257	A2 20010503

OTHER SOURCE(S): MARPAT 136:33(111)

GT



AB The invention provides compds. I [R1 = (in)branched (unisatd. (un)substituted carboc- or heterocyclic C2-30 chain, (un)substituted (aryl(CH2)n)m (n, n = 0-5); R2 = (un)substituted C1-6 alkyl, (un)substituted C2-6 alkenyl, (un)substituted C2-6 alkynyl; E = P, S; X1-X3 = O, NH, H, S, etc.], obtained by culturing Streptomyces species HAG 004107 (DSM 13381), and their physiol. tolerable salts and chem. equiv. The invention furthermore provides a process for the prepn. of the cyclipostins, the microorganism HAG 004107 (DSM 13381), the use of the cyclipostins and their physiol. tolerable salts and chem. equiv. as pharmaceuticals, in particular as inhibitors of lipases and agents for treating diabetes, and pharmaceutical prepn. which contain cyclipostin or a physiol. tolerable salt or equiv. thereof.

IT 372083-50-6P, Cyclipostin A 372088-34-1P, Cyclipostin A2
372090-27-2P, Cyclipostin E 372090-93-2P, Cyclipostin N
372091-46-8P, Cyclipostin F 372091-94-6P, Cyclipostin P2
372091-95-7P, Cyclipostin G 372091-96-8P, Cyclipostin R
372091-98-0P, Cyclipostin R2 372092-03-0P, Cyclipostin S
372092-04-1P, Cyclipostin I 372092-05-2P, Cyclipostin T2
372092-36-9P, Cyclipostin S 372092-41-6P, Cyclipostin C
RL: EPN (Biosynthetic preparation); NPG (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU

(Therapeutic use); BIOL (biological study); COM (coincidence); PREP (Preparation); USES (Uses)
(cyclipeptides, fermentative prodn., and pharmaceutical use)

L17 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2002 ACP

ACCESSION NUMBER: 2001:816678 HCAPLUS

DOCUMENT NUMBER: 135:356841

TITLE: Method for the production of cyclipeptides obtained by the cultivation of the Streptomyces species HAG 004107 (DSM 13381) and their use as inhibitors of lipases
Verhey, László; Mihály, Katalin; Károly, Michael; Wink, János

INVENTOR(S): Verhey, László; Mihály, Katalin; Károly, Michael; Wink, János

PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany

SOURCE: PCT Int. Appl., Fr. P.

CODEIN: 51XX00

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001063497	A1	20011108	WO 2001-EP4652	200104.15
W: AE, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, EZ, GE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LC, LF, LS, LT, LU, LV, MA, MD, MU, MK, MN, MW, MX, NZ, NO, NZ, PT, PT, RO, RU, SD, SE, SG, SI, SP, SL, TR, TH, TW, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AR, BY, EG, TZ, ID, IL, LC, TM				
FW: BE, BM, KE, LS, MW, MZ, SD, SL, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GE, GR, IE, IT, LT, MC, NL, PT, SE, TF, BE, BJ, CF, CG, FI, CH, GA, GM, GW, IL, MR, NE, SN, TD, TG				
DE 10001731	A1	20011115	DE 2000-10021731	200005.14
US 2002056645	A1	20020516	US 2001-EP86044	200106.2
PRIORITY APPLN. INFO.:			DE 2000-10021731 A	20000504
			WI 2001-EP4652	200104.15
			US 2001-847277	A2 20010503

OTHER SOURCE(S): MAEPAT 135:356841

GI

E4
O X3 D
E X1 X2 G

:

AB The invention relates to compds. I [E1 = straight or branched, (un)sat'd., (un)substituted C2-30-alkyl, cycloalkyl, heterocyclyl; E2 = C1-6-alkyl, C2-6-alkenyl, C2-6-alkynyl; E = P, S; X1, X2, X3 = O, NH, N:, S, CH2, CH2I], obtained by the cultivation of the Streptomyces species HAG 004107 (DSM 13381) and to all their stereoisomers and mixts., physiol. compatible salts and chem. equiv. The invention also relates to a method for producing the cyclipeptides and their physiol. compatible salts and chem. equiv. as medicaments, in particular as inhibitors of lipases [IC50 = 20 nM {cyclipeptin A; I; E1 = (CH2)11CH(OH)Bu, E2 = Me, E = P, X1 = X3 = O}, 10 nM {cyclipeptin E; I; }, 20 nM {cyclipeptin S; I; E1 = (CH2)15Me, E2 = Et, X1 = X3 = O}, 40 nM {cyclipeptin P2; I; E1 = (CH2)13CHMe2, E2 = Me, E = P, X1 = X3 = O}, 100 nM {cyclipeptin P1; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 200 nM {cyclipeptin F; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 400 nM {cyclipeptin G; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 800 nM {cyclipeptin H; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1600 nM {cyclipeptin I; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 3200 nM {cyclipeptin J; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 6400 nM {cyclipeptin K; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 12800 nM {cyclipeptin L; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 25600 nM {cyclipeptin M; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 51200 nM {cyclipeptin N; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 102400 nM {cyclipeptin O; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 204800 nM {cyclipeptin P; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 409600 nM {cyclipeptin Q; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 819200 nM {cyclipeptin R; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1638400 nM {cyclipeptin S; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 3276800 nM {cyclipeptin T; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 6553600 nM {cyclipeptin U; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 13107200 nM {cyclipeptin V; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 26214400 nM {cyclipeptin W; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 52428800 nM {cyclipeptin X; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 104857600 nM {cyclipeptin Y; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 209715200 nM {cyclipeptin Z; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 419430400 nM {cyclipeptin AA; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 838860800 nM {cyclipeptin BB; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1677721600 nM {cyclipeptin CC; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 3355443200 nM {cyclipeptin DD; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 6710886400 nM {cyclipeptin EE; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 13421772800 nM {cyclipeptin FF; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 26843545600 nM {cyclipeptin GG; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 53687091200 nM {cyclipeptin HH; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 107374182400 nM {cyclipeptin II; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 214748364800 nM {cyclipeptin JJ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 429496729600 nM {cyclipeptin KK; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 858993459200 nM {cyclipeptin LL; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1717986918400 nM {cyclipeptin MM; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 3435973836800 nM {cyclipeptin NN; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 6871947673600 nM {cyclipeptin OO; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 13743895347200 nM {cyclipeptin PP; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 27487790694400 nM {cyclipeptin QQ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 54975581388800 nM {cyclipeptin RR; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 10995116277600 nM {cyclipeptin SS; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 21990232555200 nM {cyclipeptin TT; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 43980465110400 nM {cyclipeptin UU; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 87960930220800 nM {cyclipeptin VV; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 175921860441600 nM {cyclipeptin WW; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 351843720883200 nM {cyclipeptin XX; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 703687441766400 nM {cyclipeptin YY; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1407374883532800 nM {cyclipeptin ZZ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 2814749767065600 nM {cyclipeptin AA; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 5629499534131200 nM {cyclipeptin BB; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 11258999068262400 nM {cyclipeptin CC; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 22517998136524800 nM {cyclipeptin DD; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 45035996273049600 nM {cyclipeptin EE; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 90071992546099200 nM {cyclipeptin FF; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 180143985092198400 nM {cyclipeptin GG; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 360287970184396800 nM {cyclipeptin HH; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 720575940368793600 nM {cyclipeptin II; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1441151880737587200 nM {cyclipeptin JJ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 2882303761475174400 nM {cyclipeptin KK; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 5764607522950348800 nM {cyclipeptin LL; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 11529215045900696000 nM {cyclipeptin MM; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 23058430091801392000 nM {cyclipeptin NN; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 46116860183602784000 nM {cyclipeptin OO; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 92233720367205568000 nM {cyclipeptin PP; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 184467440734411136000 nM {cyclipeptin QQ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 368934881468822272000 nM {cyclipeptin RR; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 737869762937644544000 nM {cyclipeptin SS; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1475739525875289088000 nM {cyclipeptin TT; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 2951479051750578176000 nM {cyclipeptin UU; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 5902958103501156352000 nM {cyclipeptin VV; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 11805916207002312704000 nM {cyclipeptin WW; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 23611832414004625408000 nM {cyclipeptin XX; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 47223664828009250816000 nM {cyclipeptin YY; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 94447329656018501632000 nM {cyclipeptin ZZ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 188894659312037003264000 nM {cyclipeptin AA; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 377789318624074006528000 nM {cyclipeptin BB; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 755578637248148001056000 nM {cyclipeptin CC; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 151115727448296002112000 nM {cyclipeptin DD; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 302231454896592004224000 nM {cyclipeptin EE; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 604462909793184008448000 nM {cyclipeptin FF; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1208925819586368016896000 nM {cyclipeptin GG; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 2417851639172736033792000 nM {cyclipeptin HH; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 4835703278345472067584000 nM {cyclipeptin II; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 9671406556690944135168000 nM {cyclipeptin JJ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 19342813113381888270336000 nM {cyclipeptin KK; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 38685626226763776540672000 nM {cyclipeptin LL; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 77371252453527553081344000 nM {cyclipeptin MM; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 154742504907055106162688000 nM {cyclipeptin NN; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 309485009814110212325376000 nM {cyclipeptin OO; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 618970019628220424650752000 nM {cyclipeptin PP; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1237940039256440849301504000 nM {cyclipeptin QQ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 2475880078512881698603008000 nM {cyclipeptin RR; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 4951760015025763397206016000 nM {cyclipeptin SS; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 9903520030051526794412032000 nM {cyclipeptin TT; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 19807040060103053588824064000 nM {cyclipeptin UU; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 39614080120206107177648128000 nM {cyclipeptin VV; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 79228160240412214355296256000 nM {cyclipeptin WW; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 158456320480824428705584512000 nM {cyclipeptin XX; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 31691264096164885741116880000 nM {cyclipeptin YY; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 63382528192329771482233760000 nM {cyclipeptin ZZ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 12676505638465554296446720000 nM {cyclipeptin AA; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 25353011276931108592893440000 nM {cyclipeptin BB; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 50706022553862217185786880000 nM {cyclipeptin CC; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 10141204510772443437557360000 nM {cyclipeptin DD; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 20282409021544886875114720000 nM {cyclipeptin EE; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 40564818043089773750229440000 nM {cyclipeptin FF; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 8112963608617954750045880000 nM {cyclipeptin GG; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 16225927217235909500097760000 nM {cyclipeptin HH; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 32451854434471819000195520000 nM {cyclipeptin II; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 64903708868943638000391040000 nM {cyclipeptin JJ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 129807417737887276000782080000 nM {cyclipeptin KK; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 259614835475774552000156016000 nM {cyclipeptin LL; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 519229670951549104000312032000 nM {cyclipeptin MM; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 103845934190309820800624064000 nM {cyclipeptin NN; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 207691868380619641600124012800 nM {cyclipeptin OO; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 415383736761239283200248025600 nM {cyclipeptin PP; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 830767473522478566400496051200 nM {cyclipeptin QQ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 1661534947044957132800992102400 nM {cyclipeptin RR; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 3323069894089914265601984204800 nM {cyclipeptin SS; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 6646139788179828531203968409600 nM {cyclipeptin TT; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 13292279576359657062407936819200 nM {cyclipeptin UU; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 26584559152719314124815873638400 nM {cyclipeptin VV; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 53169118305438628249631747276800 nM {cyclipeptin WW; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 106338236610873256499263594553600 nM {cyclipeptin XX; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 212676473221746512998527189067200 nM {cyclipeptin YY; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 425352946443493025997054378134400 nM {cyclipeptin ZZ; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 850705892886986051994058756268800 nM {cyclipeptin AA; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 170141178577397210398811560000 nM {cyclipeptin BB; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 340282357154794420797623120000 nM {cyclipeptin CC; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 680564714309588841595246240000 nM {cyclipeptin DD; I; E1 = (CH2)11CHMe2, E2 = Me, E = P, X1 = X3 = O}, 136112942861977768390492480000 nM {cyclipeptin EE; 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IT = P, X1 = X3 = O₂, vs. hormone-sensitive lipase).
 372083-50-6P, Cyclopostin A 372092-36-9P, Cyclopostin B
 372092-41-6P, Cyclopostin C
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); FPR (Properties); PUR (Purification or recovery); RCT (Reagent); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); RACT (Reagent or reagent); USES (Uses)
 (isolation of cyclopostins obtained by the cultivation of the Streptomyces species HAG 00410 for use as inhibitors of lipases)
 IT 372088-34-1P, Cyclopostin A 372090-27-2P, Cyclopostin B
 372090-93-2P, Cyclopostin C 372091-46-8P, Cyclopostin D
 372091-94-6P, Cyclopostin E 372091-95-7P, Cyclopostin F
 372091-96-8P, Cyclopostin G 372091-98-0P, Cyclopostin H
 372092-03-0P, Cyclopostin I 372092-04-1P, Cyclopostin J
 372092-05-2P, Cyclopostin K 372092-43-8P, Cyclopostin L
 372092-44-9P, Cyclopostin M
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); FPR (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
 (isolation of cyclopostins obtained by the cultivation of the Streptomyces species HAG 00410 for use as inhibitors of lipases)
 IT 372092-46-1, Cyclopostin G 372092-51-8, Cyclopostin H
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (isolation of cyclopostins obtained by the cultivation of the Streptomyces species HAG 00410 for use as inhibitors of lipases)
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

117 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1046543171 HCAPLUS
 DOCUMENT NUMBER: L1046543171
 TITLE: Arisugacins A and B, novel and selective acetylcholinesterase inhibitors from *Penicillium* sp. #0-425. I. Screening, taxonomy, fermentation, isolation and biological activity
 AUTHOR(S): Kuno, Fumiyoji; Otojuro, Kazuhiko; Shioiri, Kazuro; Iwai, Yuzuru; Omura, Satoshi
 CORPORATE SOURCE: Research Center Biological Function, The Kitasato Institute, Tokyo, 108, Japan
 SOURCE: *Journal of Antibiotics* (1996), 49(8), 742-747
 PUBLISHER: OXFORD
 DOCUMENT TYPE: Japan Antibiotics Research Association
 LANGUAGE: English
 AB An *in vitro* screening method for selective acetylcholinesterase (AChE) inhibitors was established. Inhibitory activity of AChE and butyrylcholinesterase (BuChE) was measured and the culture broths of microorganisms that showed selective inhibition against AChE were characterized. By using this method, a strain producing the novel and selective inhibitors of AChE, arisugacins A and B, was picked out among over seven thousand microorganisms tested. Arisugacins were obtained as white powder from the culture broth together with three known compds., territrem B and C and cycloopenin that also showed selective inhibition against AChE. Arisugacins and territrem are members of the meroterpenoid compds. They showed potent inhibitory activities against AChE with IC₅₀ values in range of 1.0.apprx.25.8 nM. Furthermore, they showed greater than 2000-fold more potent inhibition against AChE than BuChE.
 IT 144773-26-2P, Cyclophostin
 RL: BAC (Biological activity or effector, except adverse); BPN

PATENT NO. KIN. DATE APPLICATION NO. DATE
----- ----- -----
J1 06016819 A2 19940701 J1 141-1971-9 19940705

1



AB Antibiotic NK901093A (I), useful as an insecticide and acaricide, is manufd. by culturing I-producing *Streptomyces* sp. *S. lavendulae* NK901093 (FERM P-11713) was shake-cultured in a medium contg. glycerin, soybean powder, and NaCl at 27.degree. for 2 days, aerobically cultured in the same medium for 1 day, aerobically cultured in a similar medium at 27.degree. for 65 h, filtered, and the filtrate (90 L) was processed to manuf. 36 mg I. I inhibited acetylcholinesterase from houseflies with 50% inhibitory concn. of 1.2 times. 10-9M. Formulation examples and physicochem. properties of I and properties of the *S. lavendulae* are also given.

IT 156312-04-8, NK 901093A
FL: BIOL (Biological study)
(acetylcholinesterase-inhibiting insecticide and acaricide, from
Streptomyces lavandulae)

6.17 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:72992 HCAPLUS
DOCUMENT NUMBER: 120:72992
TITLE: Cyclophostin, acetylcholinesterase inhibitor from
Streptomyces lavendulae
AUTHOR(S): Kurokawa, Takashi; Suzuki, Katsuhiro; Hayaoke,
Tatsumi; Nakagawa, Taine; Izawa, Takeo; Kobayashi,
Masuko; Harada, Nobuyuki
CORPORATE SOURCE: App., Mirispiril. Res. Corp., Nippon Kiyaku Co., Ltd.,
Ageo, 362, Japan
SOURCE: Journal of Antibiotics (1993), 46(6), 1315-16
CODEN: JANTAJ; ISSN: 0021-8820

DOCUMENT TYPE: Journal
LANGUAGE: English

AB In the course of screening program for natural insecticides of microbial origin, the authors isolated a new product, cyclophostin A1, from *Streptomyces lavendulae* strain NK901093 as a strong inhibitor of acetylcholinesterase. It showed one of the strongest inhibitory activity values for the acetylcholinesterase of houseflies: 100 7.6 times, 10-10M. The authors report here the isolation and structure of comp. I including the abs. structure. It is probably the same as TAN-1118, a compound otherwise in the Japanese patent literature but whose structure has not been previously described.

IT 144773-26-2, Cyclophostin A1

RL: BIOL (Biological study);
(acetylcholin esterase inhibitor, from *Streptomyces lavendulae*,
isolation and structure of)

L17 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:2472 HCAPLUS

DOCUMENT NUMBER: 318:2471

TITLE: Fermentative preparation of antibiotic NK901093 as insecticide and miticide.

INVENTOR(S): Furukawa, Takashi; Hayakawa, Tatsumi; Izawa, Takeo; Horayashi, Masuko; Kiriwara, Shigeki; Nakagawa, Taizc

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: CKXXAF

DOCUMENT TYPE: Patent

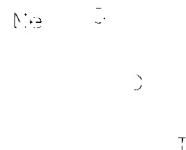
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04145539	A2	19920519	JP 1990-266451	19901005

GP



AB NK901093 (I) is prep. with *Streptomyces* as an insecticide and acaricide. It showed IC50 of 2.5 times, 10-9M against acetylcholine esterase, vs. 3.2 times, 10-6M for malaoxon and killed 100% *Culex pipiens* larvae at 0.1 ppm.

IT 144773-26-2P, NK 901093

RL: BNF (Bioindustrial manufacture); BIOL (Biological study); PREP
(Preparation)

manuf. of, with *Streptomyces*, as insecticide and miticide)

L17 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1965:74348 HCAPLUS

DOCUMENT NUMBER: 65:74348

ORIGINAL REFERENCE NO.: 65:13177 i-e

TITLE: Synthesis and chemistry of phospholes

AUTHOR(S): Campbell, I. G. M.; Cookson, R. C.; Hocking, M. B.; Hughes, A. N.

CORPORATE SOURCE: Univ. Southampton, UK

SOURCE: J. Chem. Soc. (1961), March, 1164-6

DOCUMENT TYPE: Journal

LANGUAGE: English

SI: For diagram(s), see printed CA Issue.

AB: The prepn. and properties of some phosphates (tri-alkylbiscapryl) are described. The product of the reaction of 1,1,3-triphenylphosphole with CH_2Cl_2 is shown to be a symmetric derivative. In contrast to the reaction of the phosphole with $\text{NaOCH}_2\text{C}_6\text{H}_4\text{CH}_2\text{Cl}$ in CH_2Cl_2 in which the tri-alkyl and the tri-alkyl-1,1,3-triphenylphosphole are obtained, the reaction with $\text{NaOCH}_2\text{C}_6\text{H}_4\text{CH}_2\text{Cl}$ in CH_2Cl_2 and CH_3OH gives the tri-alkyl and the tri-alkyl-1,1,3-triphenylphosphole.IT: 1256-02-6, 1-triphenyl-1,3,5-triphenyl-1,3,5-tri-alkyl-phosphole, 1,3,5-tri-alkyl-anhydride, 1,3,4-triphenyl-1,3-oxide
(prepn. cf)

LIT: ANSWER 9 OF 9 - BCAPLUS - COPYRIGHT 2002 ACS

ACCESSTIME NUMBER: 1164-6447-AEADLY

DOCUMENT NUMBER: 6474-647

ORIGINAL REFERENCE NO.: 6474-647-4

TITLE: Phospholipids. III. Synthesis of a phosphoric acid analog of L-alpha-(distearoyl)lecithin

AUTHOR(S): Berr, Kristi; Strohmeier, Michael

CORPORATE SOURCE: Univ. Toronto, Can.

CROSSREF: J. Am. Chem. Soc., 1961, 83, 174-8

DOI/URL: DOI:10.1021/ja01474a002

DOCUMENT TYPE: Journal

LANGUAGE: English

AB: cf. CA 62, 2792b. The phosphoric acid analog of L-alpha,-(distearoyl)lecithin was obtained via the following series of intermediates: di-Et 2-bromoethylphosphonate .fwdarw. 2-bromoethylphosphonic acid monoaluminiun salt, m. 150-51.5.degree. (decompn.) sintering at 132.degree. .fwdarw. 2-bromoethylphosphonic acid, m. 93-5.degree. .fwdarw. 2-bromoethylphosphonic acid monochloride .fwdarw. distearoyl-L-alpha.-glyceryl(2-bromoethyl)phosphonate (I). I with NMe₃ in HCONMe_2 gave distearoyl L-alpha.-glyceryl(2-trimethylammoniummethyl)phosphonate m. 198-202.degree., sintering at 195.degree. (L-alpha.)250) 6.9.degree. (cf. 3.4, 3:2 vol./vol. EtOH-free $\text{CHCl}_3\text{-MeOH}$).IT: 1256-02-6, 3-Phosphabicyclo[3.2.0]hept-1(5)-ene-6,7-di-carboxylic anhydride, 1,3,4-triphenyl-1,3-oxide
(prepn. cf)=>
=>

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FILE ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
 RN 447408-07-3 REGISTRY
 CN 1H,6H-Furo[3,4-b][1,3,2]dioxaphosphepin-6-one, 5,8a-dihydro-5-methyl-3-[(14-methylhexadecyl)oxy]-, 5-oxide, (3E,5aR)-rel- (9CI) (CA INDEX NAME)

116-82-6	1040-05-5	1081-14-7	1084-56-6
1045-11-0	1048-00-6	1101-04-7	1104-06-8
1169-50-9	1169-58-0	1171-77-4	1249-10-5
1256-02-6	1475-80-5	1609-67-2	1609-68-3
1639-76-7	1641-62-9	1641-64-1	17364-06-3
2141-46-2	2152-70-7	2157-83-8	21857-92-3
3272-64-1	6886-94-8	7362-34-7	93164-72-0
104862-63-1		73294-90-3	95263-18-6

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 NOV 2002 HIGHEST RN 473658-67-2
 DICTIONARY FILE UPDATES: 14 NOV 2002 HIGHEST RN 473658-67-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnote27.pdf>

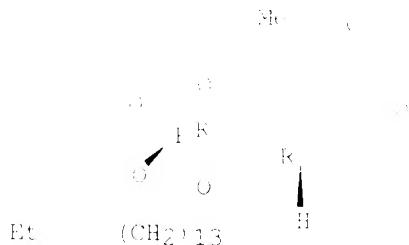
=> d rde can 116 tot

FILE ANSWER 1 OF 22 REGISTRY COPYRIGHT 2002 ACS
 RN 447408-07-3 REGISTRY
 CN 1H,6H-Furo[3,4-b][1,3,2]dioxaphosphepin-6-one, 5,8a-dihydro-5-methyl-3-[(14-methylhexadecyl)oxy]-, 5-oxide, (3E,5aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cyclipostin ϕ
 FS STEREOSEARCH
 MF C24 H48 O6 P
 SR CA
 LC STN Files: CA, CAPLUS

Relative stereochemistry.
 Currently available stereo shown.



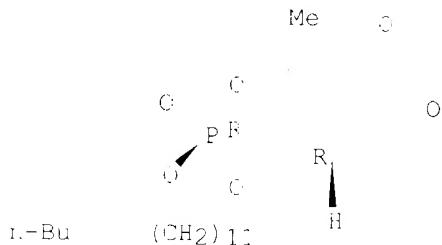
Me

1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

L16 ANSWER 2 OF 22 REGISTRY COPYRIGHT 2002 ACS
 RN 312992-51-9 REGISTRY
 CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 8,8a-dihydro-5-methyl-3-[12-oxohexadecyl]oxy]-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Cyclipostin H
 FS STEREOSEARCH
 MF C24 H48 O6 P
 SR CA
 LC STN Files: CA, CAPLUS

Relative stereochemistry.
 Currently available stereo shown.



C

2 REFERENCES IN FILE CA (1962 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 135:356841

RN 32092-46-1 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 8,8a-dihydro-3-[(13-oxohexadecyl)oxy]-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

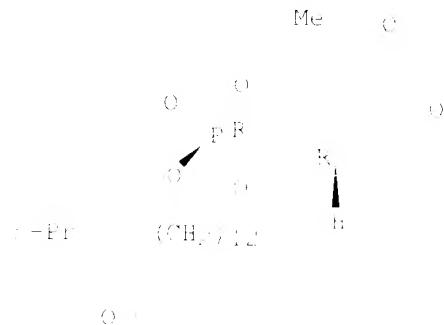
CN Cyclipostin C

FS STERECSEARCH

MP 223 H41 O7 P

SR CA

LC STN Files: CA, CAPLUS

Relative stereochemistry.
Currently available stereo shown.2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 197:165919

REFERENCE 2: 195:356841

L16 ANSWER 4 OF 22 REGISTRY COPYRIGHT 2002 ACS

RN 32092-44-9 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 8,8a-dihydro-3-[(16-hydroxyhexadecyl)oxy]-3-methyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

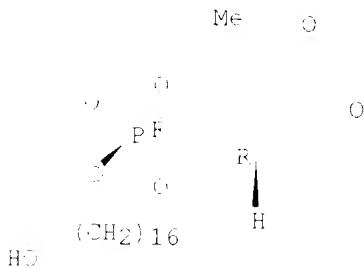
CN Cyclipostin E

FS STERECSEARCH

MP 223 H41 O7 P

SR CA

LC STN Files: CA, CAPLUS

Relative stereochemistry.
Currently available stereo shown.

2 REFERENCES IN FILE CA (1962 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 135:356841

116 ANSWER 6 OF 22 REGISTRY COPYRIGHT 2002 ACS

CN 372092-41-6 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 8,8a-dihydro-3-[(14-hydroxyhexadecyl)oxy]-5-methyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cyclipostin C

FS STEREOSEARCH

MF C23 H41 O7 P

SR CA

IC STN Files: CA, CAPLUS, USPATFILE

Relative stereochemistry.
 Currently available stereo shown.



2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 135:356841

116 ANSWER 6 OF 22 REGISTRY COPYRIGHT 2002 ACS

CN 372092-41-6 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 8,8a-dihydro-3-[(14-hydroxyhexadecyl)oxy]-5-methyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cyclipostin C

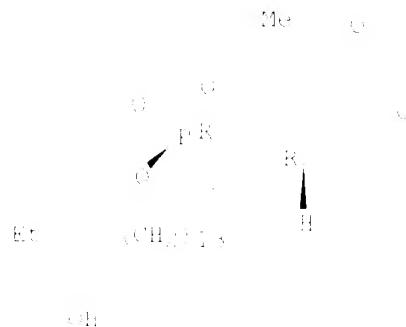
FS STEREOSEARCH

MF C23 H41 O7 P

SR CA

IC STN Files: CA, CAPLUS, USPATFILE

Relative stereochemistry.
 Currently available stereo shown.



3 REFERENCES IN FILE CA (1962 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 136:380111

REFERENCE 3: 136:356841

L16 ANSWER 7 OF 22 REGISTRY COPYRIGHT 2002 ACS

BN 372092-36-9 REGISTRY

CN 1H,6H-Puro[3,4-e][1,3,2]dioxaphosphepin-6-one, 8,8a-dihydro-3-[(13-hydroxyhexadecyl)oxy]-5-methyl-, 3-oxide, (13R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cyclipostin B

FS STEREOSEACH

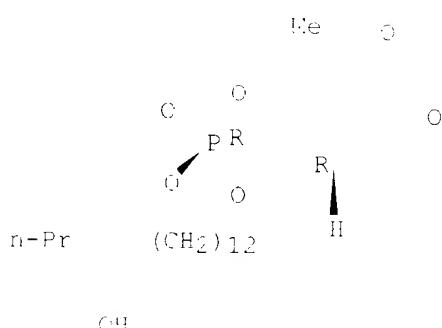
MF C23 H41 O7 P

SR CA

LC SIN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

Currently available stereo shown.



3 REFERENCES IN FILE CA (1962 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 136:380111

REFERENCE 3: 136:356841

L16 ANSWER 8 OF 22 REGISTRY COPYRIGHT 2002 ACS

RN 372092-05-2 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 8,8a-dihydro-3-[(14-methylpentadecyl)oxy]-5-propyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

COTER NAMES:

CN Cyclipostin P

PS STEREOSEARCH

MF C26 H45 O6 P

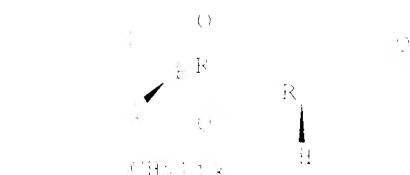
SR CA

SC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

Currently available stereo shown.

Pr-n O



Me/CH

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 197:165959

REFERENCE 2: 196:382111

REFERENCE 3: 195:356441

L16 ANSWER 9 OF 22 REGISTRY COPYRIGHT 2002 ACS

RN 372092-04-1 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 3-(hexadecyloxy)-8,8a-dihydro-5-propyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

COTER NAMES:

CN Cyclipostin T

PS STEREOSEARCH

MF C26 H45 O6 P

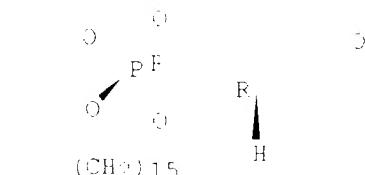
SR CA

SC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

Currently available stereo shown.

Pr-n O



Me

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 136:380111

REFERENCE 3: 136:356841

L16 ANSWER 10 OF 22 REGISTRY COPYRIGHT 2002 ACS

RN 37092-03-0 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 5-ethyl-3-(hexadecyloxy)-8,8a-dihydro-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cycloipostin B

FS STEREOSEARCH

MF C24 H43 O6 P

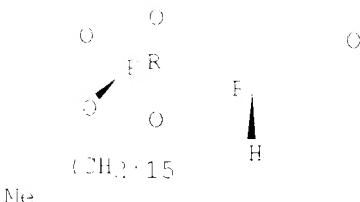
SR CA

LC SCN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

Currently available stereo shown.

Et O



3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 136:380111

REFERENCE 3: 136:356841

L16 ANSWER 11 OF 22 REGISTRY COPYRIGHT 2002 ACS

RN 37091-98-0 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 8,8a-dihydro-5-methyl-3-[(1E-methyltetradecyl)oxy]-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cycloipostin B

FS STEREOSEARCH

MF C24 H43 O6 P

SR CA

LC SCN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

Currently available stereo shown.



3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 136:380111

REFERENCE 3: 135:356841

116 ANSWER 12 OF 22 REGISTRY COPYRIGHT 2002 ACS

IN 372091-96-8 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 8,8a-dihydro-5-methyl-3-(pentadecyloxy)-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cycloipostin E

PS STEREOSEARCH

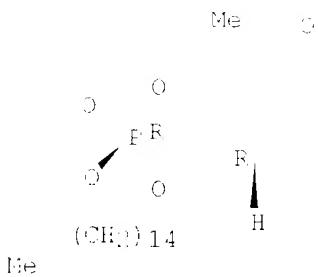
MF C22 H39 O6 P

GR CA

DC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

Currently available stereo shown.



3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 136:380111

REFERENCE 3: 135:356841

116 ANSWER 13 OF 22 REGISTRY COPYRIGHT 2002 ACS

IN 372091-95-7 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 3-(heptadecyloxy)-8,8a-dihydro-5-methyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cycloipostin Q

PC INTERFSEARCH
MF 014 B48 06 P
JK CA
JL 2000 FILES: CA, 1980, 1981, 1982

Final Stage of the Project Management



REFERENCES IN THIS VOLUME OF THE JOURNAL

PEIERLS: THE 1937 EDITION

REFERENCE : 136 : 34, 111

REFERENCE 3: 135:36641

L16 ANSWER 14 OF 22 REGISTRY COPYRIGHT 2002 ACS

RN 372091-94-6 REGISTRY

CN 1H, 6H-Furo[3, 4-e][1, 3, 2]dioxaphosphorin-6-one, 8, -1-ihydro-5-methyl-3-

1,2,4-methyl

OTHER NAMES:

SYNTHETIC STEREOREGULAR

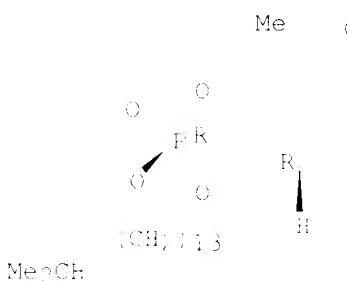
FS STEREOSEARCH
ME C23 841 06 E

ME 023-1191-00 E
SR CA

LC STN Files: CA, CAPLUS, USEFUL

Relative stereochemistry.

Currently available stereo shown.



3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 197165939

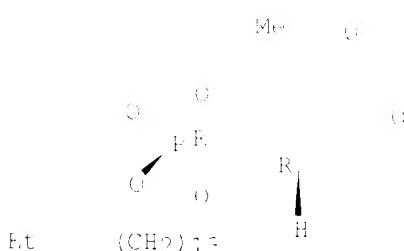
REFERENCE NO: 136180111

REFERENCE 3: 135:356841

3 REFERENCES IN FILE CA (1962 TO DATE)
REFERENCE 1: 137:165939
REFERENCE 2: 136:380111
REFERENCE 3: 135:356841

L15 ANSWER 18 OF 22 REGISTRY COPYRIGHT 2002 ACS
RN 372088-34-1 REGISTRY
CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 8,8a-dihydro-3-[(12-hydroxy-14-methylpentadecyl)oxy]-5-methyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Cyclopentan F
PS STREORESEARCH
KF C23 H39 O7 F
SR CA
IC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.
Currently available stereo shown.



3 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939
REFERENCE 2: 136:380111
REFERENCE 3: 135:356841

L16 ANSWER 18 OF 22 REGISTRY COPYRIGHT 2002 ACS
RN 372088-34-1 REGISTRY
CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 8,8a-dihydro-3-[(12-hydroxy-14-methylpentadecyl)oxy]-5-methyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:
CN Cyclopentan A2
PS STREORESEARCH
KF C23 H39 O7 F
SR CA
IC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.
Currently available stereo shown.



3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 136:380111

REFERENCE 3: 135:356841

116 ANSWER 19 OF 22 REGISTRY COPYRIGHT 2002 ACS

EN 312085-50-6 REGISTRY

CN 14,6H-Furo[3,4-e][1,3,2]dioxaphosphepin-6-one, 8,8a-dihydro-3-[(12-hydroxyhexadecyl)oxy]-5-methyl-, 3-oxide, (3R,8aR)-rel- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Cyclipostin A

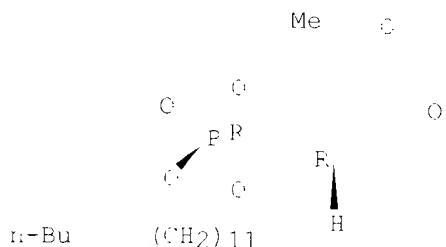
FS STEREOSEARCH

MF C₃₁H₄₁O₇P

PK CA

SC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.



3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:165939

REFERENCE 2: 136:380111

REFERENCE 3: 135:356841

116 ANSWER 20 OF 22 REGISTRY COPYRIGHT 2002 ACS

EN 156512-04-8 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 8,8a-dihydro-3-methoxy-5-propyl-, 3-oxide, (3R,8aR)- (CA INDEX NAME)

OTHER CA INDEX NAMES:
CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 8,8a-dihydro-3-methoxy-5-propyl-, 3-oxide, (3R-cis)-

OTHER NAMES:

CH NK 901093

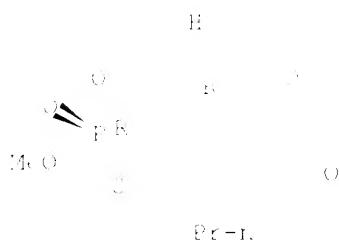
CH STEREOSEARCH

MF CM H11 06 F

SH CA

IC STN Files: BIOSIS, CA, CAPLUS

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 1:1:81134

116 ANSWER 11 CF 22 REGISTRY COPYRIGHT 2002 ACS

PR 144773-26-2 REGISTRY

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 8,8a-dihydro-3-methoxy-5-methyl-, 3-oxide, (3R,8aR)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1H,6H-Furo[3,4-e][1,3,2]dioxaphosphhepin-6-one, 8,8a-dihydro-3-methoxy-5-methyl-, 3-oxide, (3R-cis)-

OTHER NAMES:

CH Cyclophostin

CH Cyclophostin (antibiotic)

CH NK 901093

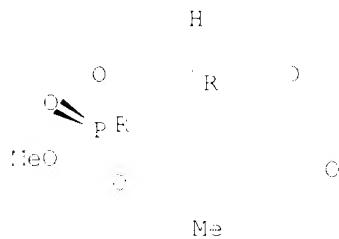
CH STEREOSEARCH

MF CM H11 06 F

SH CA

IC STN Files: BIOSIS, CA, CAPLUS, MEDLINE

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 125:265671

REFERENCE 2: 4211 (1964)

REFERENCE : 11-1121, 472

THE BOSTONIAN

— 1 —

15

1 REFERENCES AND BIBLIOGRAPHY

REFERENCE 11: GELFAND

REFERENCE 2: 62:74347